W03049-STL

0053053

ANALYTICAL REPORT

PROJECT NO. 105-F/DR PHASE3

B00-014

Lot #: F0B040242 SDG #: W03049

Accounts Payable

Bechtel Hanford, Inc.



Original received 3/9/2000 Dayres



EDMC

SEVERN TRENT LABORATORIES, INC.

MARTI WARD Project Manager

April 1, 2000



Quanterra Incorporated 13715 Rider Trail North Earth City, Missouri 63045

314 298-8566 Telephone 314 298-8757 Fax

CASE NARRATIVE

Bechtel Hanford Incorporated 3350 George Washington Way Richland, Washington 99352

March 8, 2000

Attention: Joan Kessner

Quote Number : 33833
SDG : W03049
Number of Samples : one (1)
Sample Matrix : Water
Data Deliverable : Summary

Date SDG Closed : February 3, 2000



II. Introduction

On February 3, 2000, one (1) "water" sample was received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The samples were received at the St. Louis lab on 2/4/00 at a temperature of 3 degrees C. See the attached Sample Summary for a listing of Client Ids and their associated Lab numbers.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested:

ICP Metals - (SuperTrace Lead)

Deviation from Request:

None

IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank

QCLCS- Quality Control Laboratory Control Sample, Blank Spike

MS-

Matrix Spike.

MSD-

Matrix Spike Duplicate.



Bechtel Hanford Incorporated

March 8, 2000

Quote Number: 33833

SDG: W03049

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V. Comments

General:

The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

Please refer to the attached cross-reference table for the standard preparation methods used at Quanterra, St. Louis.

The EDD for this SDG will be sent at a later date. The switch to our new LIMs system required a re-programming of the EDD software. That is currently in process.

Metals:

A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Spike Duplicate were analyzed with each preparation batch per the protocol for his analysis.

There were no comments or non-conformances associated with this data.

I certify that this Summary is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:

Marti Ward

St. Louis Project Manager

SAMPLE SUMMARY

F0B040242

| WO # SAMPLE# CLIENT SAMPLE ID | DATE | TIME |
|-------------------------------|----------|-------|
| D886T 001 B0XH85 | 02/01/00 | 12:25 |
| MOTER (C) - | | |

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

METHODS SUMMARY

F0B040242

PARAMETER

ANALYTICAL PREPARATION METHOD

Trace Inductively Coupled Plasma (ICP) Metals SW846 6010B SW846 3010A

References:

SW846

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

STL- St. Louis

PSL20300 Page 1 QUANTERRA INCORPORATED CLIENT ANALYSIS SUMMARY Quanterra - St. Louis

Run Date: 2/07/00

Time: 8:55:34

User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.

PROJECT MANAGER: MARTI WARD

QUOTE/SAR #: 33833

LAB ID: F-0B040242-001

PROJECT #: 105-F/DR PHASE3 WORK ORDER: D886T

REPORT TO: Accounts Payable RECEIVING DATE: 2/03/00

P.O. NUMBER: SAMPLING DATE: 2/01/00

SITE: B00-014 ANALYTICAL DUE DATE: 2/18/00N AMOUNT REC"D: 500P REPORT DUE DATE: 2/24/00

STORAGE LOC: S2D PRIORITY: 15

LOT COMMENTS: Client requires QC, even if a lesser vol SAMPLING TIME: 12:25

MATRIX: WATER RECEIVING TIME: 14:30

SAMPLE ID: BOXH85

QC PACKAGE: Special Report - see checklist SDG# : W03049

SAMPLE COMMENTS:

Beginning Depth:

.00 Ending Depth:

.00

WRK EXTRACTION ANALYSIS REQUEST

**** ANALYSIS **** LOC DATE EXP DATE EXP DATE

Inductively Coupled Plasma (6010B Trace) 06 2/04/00 0/00/00 7/30/00

METALS, TOTAL - Waters MT6010 L PB

(I-05-QM-01) D886T Protocol: A QC Program: STANDARD TEST SET

PSL20300

Page . 1

QUANTERRA INCORPORATED CLIENT ANALYSIS SUMMARY Quanterra St. Louis

Run Date: 2/07/00 Time: 8:55:34 User Id : SEITHELK

LAB ID: F-08040242-001-D WORK ORDER: D886T MSD

RECEIVING DATE: 2/03/00 SAMPLING DATE: 2/01/00

CLIENT: 127642 BECHTEL HANFORD, INC

PROJECT #: 105-F/DR PHASE3

REPORT TO: P.O. NUMBER SAMPLING DATE: 2/03/00

SAMPLING DATE: 2/01/00

ANALYTICAL DUE DATE: 2/18/00N

REPORT DUE DATE: 2/24/00

STORAGE LOC: S2D: PRIORITY: 16**

LOT COMMENTS: Client requires QC, even if a lesser vol SAMPLING TIME: 12:25

MATRIX: WATER: RECEIVING TIME: 14:30

SAMPLE ID: BOXH85

QC PACKAGE: Special Report - see Checklish

SAMPLE COMMENTS: Accounts Payable

Beginning Depth:

.00 Ending Depth:

WRK

DATE

EXTRACTION ANALYSIS EXP DATE EXP DATE

Inductively Coupled Plasma (6010B Trace) 06

2/04/00

TOC

0/00/00

7/30/00

METALS, TOTAL - Waters

***** ANALYSIS *****

MT6010 L PB

(I-05-QM-01) D886T

Protocol: A QC Program: STANDARD TEST SET

STL- St. Louis

PSL20300

Page 1

QUANTERRA INCORPORATED

CLIENT ANALYSIS SUMMARY Quanterra - St. Louis

Run Date: 2/07/00

Time: 8:55:34

User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.

QUOTE/SAR #: 33833 PROJECT MANAGER: MARTI WARD LAB ID: F-0B040242-001-S

PROJECT #: 105-F/DR PHASE3 WORK ORDER: D886T MS

REPORT TO: Accounts Payable RECEIVING DATE: 2/03/00

P.O. NUMBER: SAMPLING DATE: 2/01/00

SITE: B00-014 ANALYTICAL DUE DATE: 2/18/00N

AMOUNT REC"D: 500P REPORT DUE DATE: 2/24/00

STORAGE LOC: S2D PRIORITY: 15

LOT COMMENTS: Client requires QC, even if a lesser vol SAMPLING TIME: 12:25

MATRIX: WATER RECEIVING TIME: 14:30

SAMPLE ID: BOXH85

QC PACKAGE: Special Report - see checklist SDG# : W03049

SAMPLE COMMENTS:

Beginning Depth: .00 Ending Depth: .00

WRK REQUEST EXTRACTION ANALYSIS

***** ANALYSIS ***** LOC DATE EXP DATE EXP DATE

Inductively Coupled Plasma (6010B Trace) 06 2/04/00 0/00/00 7/30/00

METALS, TOTAL - Waters

MT6010 L PB

(I-05-QM-01) D886T Protocol: A QC Program: STANDARD TEST SET

| | _ | | | | | | | | | 3" | 5 | , | 4.00 |
|---|---------------------------------------|----------------|---|--|---|---------------|----------------|--|--|---------------|--|--|--|
| Bechtel Hanford | Inc. | | HAIN OF CUS | | | ANAL | | REQUES' Project Coord | | B(| 00-014-05 | Page 1 | of <u>1</u> |
| Collector Fahlberg/Winterrose | | | mpany Contact Telephone J Adler 373-431 | | | | | TRENT. SJ | ma cor | Price Code 7L | | | reasound |
| Project Designation 105-F/DR Phase III Below-grade | : Areas Sampling and Anal | | ing Location F | | | | | SAF No. B00-014 | | Air Qualit | y | 21 | Days |
| ce Chest No. | | | Logbook No. 1424 | | COA 105F22870 | | | Method of Ship Fed Ex | pment | | | | |
| Shipped To Quanterra Incorporated | · · · · · · · · · · · · · · · · · · · | Offsite | Property No. | 1 . | Picva | 8/21 | 1.00 | Bill of Lading | /Air Bitl I | No. | | | |
| POSSIBLE SAMPLE HAZARD |)S/REMARKS | | Preservation | None | HNO) to pH | HClmpH <2 | 51NO3 to <2 | High | | | | | |
| | | | Type of Container | P | P | Р | P | | | | | | |
| | | | No. of Container(s) | | , 1 | | \ \' | | | | | | |
| Special Handling and/or Storage | • | | Volume | 20mlL | 500ml. (| 1000mL | 人 | 1 | | | | | |
| 5, | SAMPLE ANALYSIS | 030 | 149 | Activity Scu | (Supervise) (Lead); Manager, 7470 - (CV) | Technolium-99 | Specia | • | | | | | |
| Sample No. | Matrix S | imple Date | Sample Time | | | | 25 | | 4 | 第一段 | \$ 500 m | 生产 品 | A) 1885 |
| 30XH85 | Water 1_r | 1.09 | 12,25 | X_ | <u> </u> | <u>×</u> | <u>X</u> _ | | | | | ļ | |
| | | | | | 100% | | | | | | | | |
| | | | _ | | - House | | | | | | 1 | | |
| | | | | | | | 1 | | | | | | <u> </u> |
| CITAIN OF POSSESSION | | Sign/Print | | | | JAI, INSTR | UC110 | NS | | | | _ | Matrix * |
| KULSA 23 | 00 /0900 f | Kef July 1 | R. Thors | ate/Time / 4 | (i) G | | | ter) (Cobalt-60): C Total Sr: America rig Inata 10 dect | | | | | S+Soll SE-Soliment SC+Solid S+Sluige W-Water CFCM A-AH |
| T K COLON | A COMPANE | ut le | | -3-00/ | 430 | SOUP | ٠, ١ | IP REU. | 3 | 7 7 7 7 7 | 1 | | DS-Drum Saleds DL-Oreus Liquids T. Tissue |
| Celinquished By Lelinian | Date/Time Res | WAR BY | M/852 2.4. | UV & | 50 . | 1 | | | •, | | | | W1-Wipe L-Limit |
| clinquished By | | eived By | D | ate/Time | 8:40 > | fV | | | | - P | | | V-Vepetalen X-Ottor |
| elinquished By | Date/Time Re | cived By | D | ste/lime | | | | | | | · · | | |
| ABORATORY Received By SECTION | | | <u> </u> | Ti | itle | | | | | | | Date/Time | |
| FINAL SAMPLE Disposal Method | 4 | | | | ·- | Dispo | sed By | | | | 1 | Date/Time | |
| DISPOSITION | | · · | | | | • | | | | | · · · · · · · · · · · · · · · · · · · | | |



020768

Login No.: FOB040242

wa 3049

Condition Upon Receipt Variance Report St. Louis Laboratory

| Clien | t: | Becklel | | Date | : | 2-4-00 Time: 8,40 |
|---------------|----------|--|---------------|----------|--------|--|
| Proje | ct No: | 33833 | | Initia | ted by | : Sustiled |
| Shipp | er/No: | arborne 4012614410 | ١ | RFA | /COC | Numbers: 500-04-05 |
| Cond | lition/\ | Variance (Check all that apply): | | | | |
| l. | □ | Sample received broken/leaking. | | 8. | 0 | Sample ID on container does not match sample ID |
| 2. | | Sample received without proper preservative. | | | | on paperwork. Explain: |
| | | ☐ Cooler temperature not within 4-C ± 2 | ·c | | | |
| | | Record temperature: | ··· | | | |
| | | □ pH | | 9. | | All coolers on airbill not received with shipment. |
| | | Other: | | 10. | | Other (explain below): |
| 3. | - | Sample received in improper container. | | | | |
| 4. | D | Sample received without proper paperwork. Exp | olain: | | | |
| 5 . | | Paperwork received without sample. | | | | |
| 6. | | No sample ID on sample container. | | | | |
| 7. | | Custody tape disturbed/broken/missing. | | | | |
| Temp Notes | | Political Politi | ses: gulf | ke M | R W | 2.5.00 |
| Corre | ective A | action: | | | | • |
| 0 | c | lient's Name: | Informed verh | ally on |): | Ву: |
| 0 | c | lient's Name: | Informed in w | riting (| on: | By: |
| | | ample(s) processed "as is". | | | | |
| 0 | Comm | nents: ample(s) on hold until: | | | 1 | if released, notify: |
| Samp | ole Cont | rol Supervisor Review: (or designate) | Mossi | <u></u> | Date | = 2-4-00 |
| Proje | et Mana | agement Review: | Ward_ | | Date | = 2.5.00 |
| | | SIGNED ORIGINAL | MUST BE RETA | INED | IN TH | E PROJECT FILE |

SL-ADMIN-0004, Revised 12/12/98

BECHTEL HANFORD, INC.

Client Sample ID: BOXH85

TOTAL Metals

Lot-Sample #...: F0B040242-001

Date Sampled...: 02/01/00

Matrix....: WATER

Date Received..: 02/03/00

| PARAMETER | RESULT | REPORTING | UNITS | METHOD | PREPARATION- ANALYSIS DATE | WORK ORDER # |
|-----------------------|----------|---------------------|---------------|-------------|-------------------------------|-----------------|
| Prep Batch #: Lead | ир | 3.0 lution Facto | ug/L or: 1 | SW846 6010B | 02/18/00 | D886T101 |
| Chromium | ND Di | 5.0 Lution Facto | ug/L or: 1 | SW846 6010B | 02/18/00 | D886T104 |